

CLAIMS:

1. A control apparatus for a vehicular drive system which has a drive power source and an automatic transmission operatively connected to said drive power source, and in which a drive force is transmitted from said drive power source to a drive wheel of a vehicle through said automatic transmission, said control apparatus including uphill-drive-force control means for controlling the drive power source and/or the automatic transmission to increase a drive force of the vehicle during an uphill-road running of the vehicle at a given required vehicle output as compared with a drive force during a level-road running of the vehicle, at substantially the same required vehicle output, for obtaining substantially the same value of acceleration of the vehicle during the uphill-road running as that during the level-road running, said control apparatus being characterized by comprising:

delay control means for delaying initiation of a drive force control by said uphill-drive-force control means for said uphill-road running of the vehicle, until a predetermined first time period has passed after a moment of initiation of said uphill-road running.

2. The control apparatus according to claim 1, further comprising:

reference acceleration calculating means for calculating a reference acceleration of the vehicle on the basis of an actually generated drive force of the vehicle;

actual acceleration detecting means for detecting an actual acceleration of the vehicle;

acceleration difference calculating means for calculating an acceleration difference between said reference acceleration calculated by said reference acceleration calculating means and said actual acceleration detected by said actual acceleration detecting means; and

acceleration difference determining means for determining whether said acceleration difference calculated by said acceleration difference calculating means is larger than an uphill-roadway determining threshold above which a roadway on which the vehicle is running is an uphill roadway a gradient of which requires the drive force control by said uphill-drive-force control means,

and wherein said delay control means includes first period measuring means for measuring a time period during which said acceleration difference determining means determines that said acceleration difference is held larger than said uphill-roadway determining threshold, and first period determining means for determining whether said time period measured by said first period measuring means has exceeded said predetermined first time period during which the initiation of the drive force control by said uphill-drive-force control means is delayed, said delay control means delaying the initiation of the drive force control by said uphill-drive-force control means until said first period determining means has determined that said time period measured by said first period measuring means had exceeded said predetermined first time period.

3. The control apparatus according to claim 1 or 2, wherein said delay control means permits the drive force control by said uphill-drive-force control means when an amount of increase of said required vehicle output has exceeded a predetermined value, even before said predetermined first time period has passed after the moment of initiation of said uphill-road running of the vehicle.

4. The control apparatus according to any one of claims 1-3, further comprising uphill-drive-force-control termination determining means for continuing the drive force control by said uphill-drive-force control means for a predetermined second time period after a moment of termination of said uphill-road running of the vehicle.

5. The control apparatus according to claim 4, wherein said uphill-drive-force-control termination determining means includes second period measuring means for measuring a time period during which said acceleration difference determining means continues to determine that the vehicle acceleration difference is not larger than said uphill-roadway determining threshold, and second period determining means for determining whether said time period measured by said second period measuring means has exceeded said predetermined second time period for which the drive force control by said uphill-drive-force control means is continued, said uphill-drive-force-control termination determining means

continuing the drive force control by said uphill-drive-force control means for said predetermined second time period until said second period determining means has determined that the time period measured by said second period measuring means has exceeded said predetermined second time period.